



.count on me

The production

In 1896, gold miners at the Canadian Klondike river panned for gold with a shovel, hoe, and sieve.

Changers credits, the gold of the 21st century, are generated with the solar panel Maroshi and the intelligent solar battery Kalhuohfummi. Your Kalhuohfummi measures your CO₂ savings and reports these contributions to the Community.



*Make a decision,
produce your own energy
and change the world.*

Technical Specifications

Changers Solar Panel Maroshi

Size: Height 37.0 / Width 19.1 / Thickness 0.2 (cm)
Height 14.6 / Width 7.52 / Thickness 0.078 (in)
Weight: 105 grams (3.70 oz)
Rated power (P_{max}): 4 Watt
Voltage at P_{max} (V_{mp}): 16.5 Volt
Current at P_{max} (I_{mp}): 0.24 Ampere
Open circuit voltage (U_{oc}): 23.25 Volt
Short-circuit voltage (I_{sc}): 0.29 Ampere
Solar cable: 2m, DC-jack 2 pole 5.5 x 2.1 mm

Changers Solar Charger Kalhuohfummi

Size: Height 9.6 / Width 8.25 / Depth 2.0 (cm)
Height 3.78 / Width 3.25 / Depth 0.78 (in)
Weight: 161 grams (5.67 oz)
Power input DC-IN: 5V – 30V, max. 1A
Active MPP-tracking
Energy storage 4,400 mAh; Lithium-Ion cells
Power output DC OUT: 5V, max 1.3 A

Contents

The Changers Solar Charger Starter Kit includes the following Changers products:

1. Changers Solar Panel Maroshi

Two suction cups with knurled nuts
Quick Start Guide/Manual

2. Changers Solar Charger Kalhuohfummi

Micro USB cable to USB type A
Charger USB type A to Adapter-plug device
8 adapters: 1 x mini USB, 1 x LG KG80, 1 x Nokia 2mm, 1x Sony Ericsson,
1 x Samsung D800, 1x Sony PSP, 1x Nintendo DS/GB, 1 x Nintendo DS lite
Quick Start Guide/ Manual

The two products are also available separately with the box contents as described for each individual product.

The value

The UN Climate Conference in Copenhagen defined CO₂ emissions reduction as having a global value for the international community. The reduction of this greenhouse gas should be a global goal.

The production of one watt-hour of renewable energy is equivalent to half a gram of CO₂ savings, on average, as specified by the International Energy Agency. This is the basis of our measurement of individual and community savings.

*“The only
currency
backed
by the sun”*

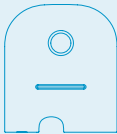
The story behind it all

Kalhuohfummi and Maroshi

The history of Kalhuohfummi and Maroshi begins in the 16th century with an unequal struggle for freedom and independence. At the time, the greatest threat to the Maldives was Portuguese conquest. The Maldivian people built a warship called Kalhuohfummi for their defense, which proved vital to the success of their guerilla fighting. The ship's sails were made on Maroshi, an island where the warship was also loaded with drinking water for supplying the fighters.

Today, the greatest danger to the Maldives is the steadily rising water level caused by climate change. And again it is Kalhuohfummi, the intelligent solar battery, which is docked to the island Maroshi, the solar panel, that gets loaded with energy and supplies the warrior of light in the fight against climate change and destruction of our environment.

Safety Instructions: Solar Charger KALHUOHFUMMI



Kalhuohfummi

Protect the device against vibrations and shock. Keep it clean and dry and protect it from overheating. Do not place flammable, explosive, or otherwise dangerous objects in the vicinity of the device. Protect the device from rain and humidity and do not place it in liquid. Never attempt to open the device or repair it yourself. Use the device only in the temperature range of – 20°C (– 4°F) to +60°C (140°F).

If you do not intend to use the battery for a long time, store it at least halfway charged (two LEDs should glow in the battery indicator).

Prolonged exposure to direct sunlight may cause overheating. Use the battery only with compatible Changers solar panels.

Help & Contact Info

For answers to frequently asked questions, please check out our FAQ and our helpdesk at: help.changers.com
For any further questions please contact us via e-mail: support@changers.com
For manuals in other languages, please visit our website at: www.changers.com/en/download

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Designed in Berlin, assembled in Germany.
BlackSquared GmbH, Berlin, Germany
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The idea behind Changers is to motivate as many people as possible to produce their own energy and thereby make a contribution towards the prevention of climate change. We want to raise awareness of the impact that our behaviour has on our environment and help make this world a better place.

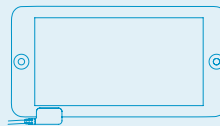
The exchange



You can redeem your earned CO₂ credits for sustainable products and services on our marketplace. The marketplace helps you discover great companies and their exciting new approaches and you can change the world a little more with every exchange.

*This is your
life, do
what you
love.*

Safety Instructions: Solar Panel MAROSHI



Maroshi

Do not place objects on the panel and do not sit on it. Never attempt to cut or scratch the panel. Temperatures of over 90° C (194°F) may destroy the solar panel. Do not expose the solar module to liquids other than water. Never place any flammable, explosive or otherwise dangerous objects in the vicinity of the solar module.

When using the suction cups to attach the panel, please make sure that the device is securely affixed to the surface. Failure to do so may result in potential danger from falling devices.

Remember, the solar panel is flexible but not unbreakable. Excessive bending may lead to loss of power.

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WARNING: CHOKING HAZARD - small parts. Not for children under 3 years. Our products are not designed as toys for small children. Adapters, suction cups and screws can pose a choking hazard if swallowed.

1 Welcome

Thank you for purchasing the Changers Starter Kit. The solar panel Maroshi and solar battery Kalhuohfummi are your warm welcome into a community that produces its own energy.

From now on, you are contributing to the reduction of harmful CO2 emissions with the production of your own solar-generated energy. You also earn credits which can be redeemed on the Changers marketplace.

To take advantage of all these features, please register a personal profile and your battery Kalhuohfummi on Changers.com prior to your first use.

The registration is required to initialize your battery and connect it with your personal Changers profile. Your battery is then ready to take in sun, measure your energy balance, and earn you credits.

4 Initialization of the battery KALHUOHFUMMI

Your battery works like a small computer. It does much more than just store energy and charge your devices. Connect the Kalhuohfummi with your computer using the provided USB data cable to take advantage of the battery's many features.

Activate the Changers software. Then press the battery's round button and wait for the software to recognize the battery. This opens a dialog box to login and connect your battery with your personal profile.

Log-In Data: Enter the e-mail and password you used to register a profile directly on Changers.com.

Attention: If you are logged in via social media on Changers, use the login that is for your Facebook or Twitter account.

Complete the initialization and personalization of your battery according to the instructions. Now you are ready to generate and track your own energy.

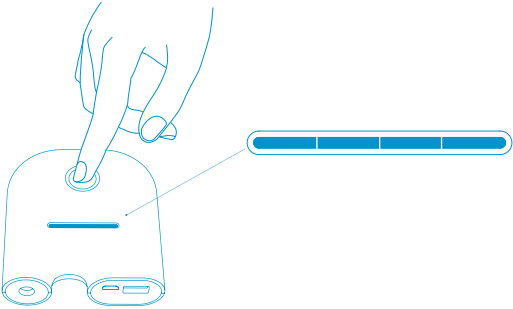
6 How the Solar Battery KALHUOHFUMMI Functions

The solar battery has a control button and an LED display. If your solar panel is illuminated directly by the sun, the charging process of the battery will begin immediately and the LED display will flash.

The flashing of the LED display shows you not only whether the battery is charging, but also indicates the amount of incoming solar power. At an input of 10 watts, the LED light is solid unblinking and with an input of 3 watts, the display blinks 3 times per second, etc.

Depending on the angle at which the sun's rays hit the solar panel, the flashing frequency of the LED display will change. Once the battery is fully charged, the charging stops automatically. Your battery has now stored the energy of about 16 watt-hours.

9 Battery Indicator



You can check to what extent the battery is charged by pressing the round control button. The LED display shows you the charge level of the battery for 5 seconds. If the Kalhuohfummi is completely discharged, no LEDs light up. To efficiently store the energy inside the battery when not in use, the device switches itself off. It is immediately restored by pressing the round button.

11 Your energy balance and credits

You've set up your account with Changers.com, created your profile, and personalized your battery with your profile! Now you're ready to save your energy balance and share it with the community, and earn Changers credits.

Connect your battery with your computer using the provided USB to micro USB data cable. Then press the round control knob of the Kalhuohfummi. A dialog box will appear on your screen. Click the integrated middleware to authorize the recording of your energy balance. Then simply follow the steps on the onscreen menu.

2 Register with the CHANGERS COMMUNITY

Go to Changers.com and click "Login" on the top navigation bar. This opens a dialog box and there you can register with your email address and a password. If you prefer, use a social media connection to register via Facebook or Twitter.

Now you have registered and have a Changers user profile. The next step is to download the software to allow you to link your battery with your profile. Only then will your energy consumption, battery performance, and your earned credits become measurable.

Click on your name in the top navigation bar to open a drop down menu. Click "Device Settings" and open the "Download Changers Software" tab.

Choose the appropriate software for your operating system and install it on your computer. Follow the onscreen instructions.

5 How the Solar Panel MAROSHI Functions

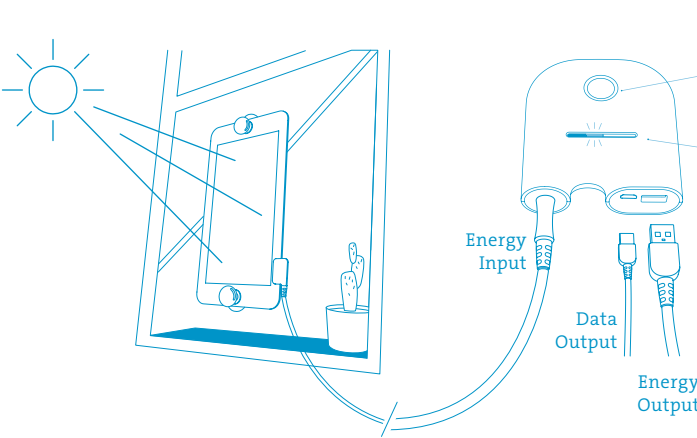
The solar panel Maroshi reaches its maximum capacity when unfiltered sunlight shines directly on it. The panel is weatherproof and can be used outside throughout the year, though it is best installed somewhere sheltered from direct rain.

If you choose to mount the panel on the inside of a window, make sure the window is not tinted and does not have a UV filter to ensure the panel works as efficiently as possible.

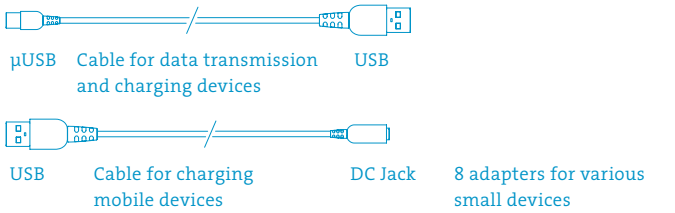
Depending on whether you opt to install the panel outdoors or indoors, mount the supplied suction cups accordingly. Affix the panel in a sunny location.

The solar panel has a durable 2 meter long cable with a DC plug that should be plugged into the "Sun" charging socket of the solar battery. Check that the plug is firmly secured and deep in the socket to ensure solid contact between the panel and battery.

7 Installation

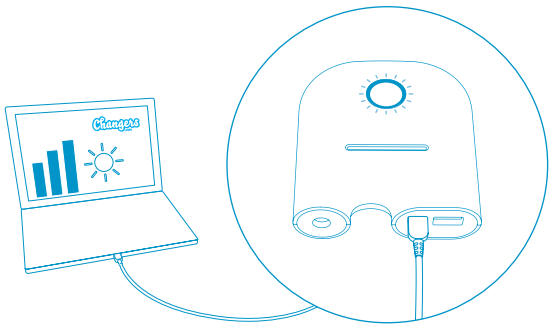


10 Charging mobile devices

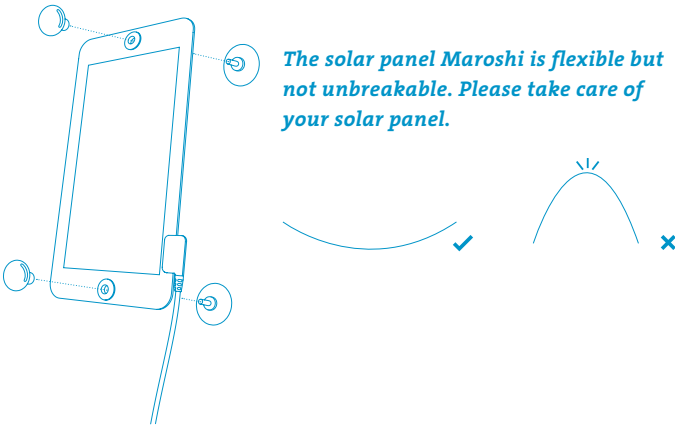
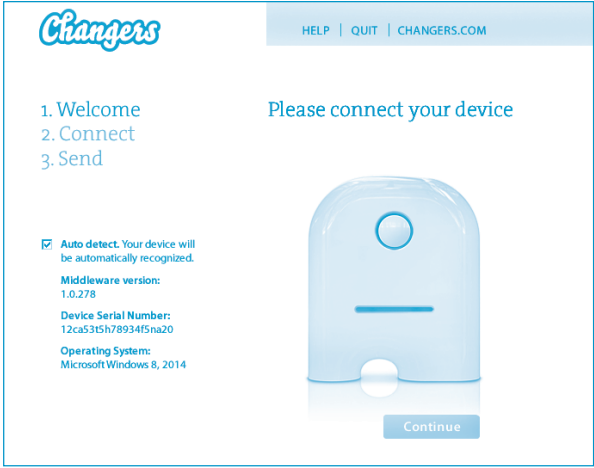


The battery Kalhuohfummi charges nearly all small mobile devices that can take in 5 Volts via USB power. To charge a mobile device, use the supplied USB to micro USB cable or the original charging cable that came with your device. All Apple products should be charged with their original cables.

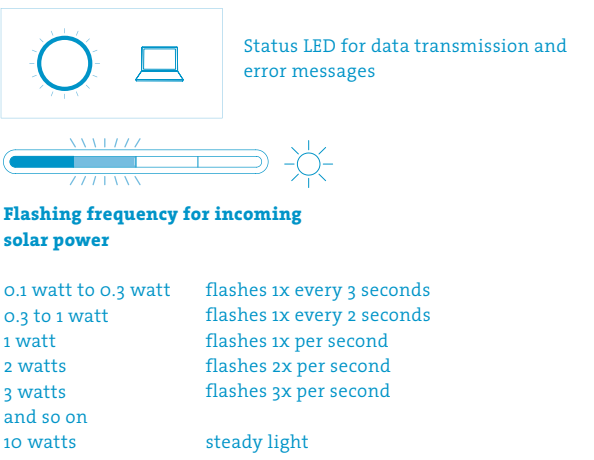
For full compatibility, a USB to DC Jack cable is included with 8 adapters: mini USB, LG KG8o, Nokia 2mm, Sony Ericsson, Samsung D8oo, Sony PSP, Nintendo DS/GB, and Nintendo DS lite.



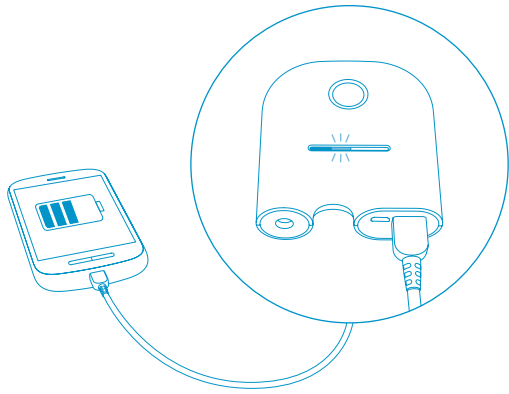
3 Installation of the CHANGERS SOFTWARE



8 Generate energy



Flashing frequency for incoming solar power	
0.1 watt to 0.3 watt	flashes 1x every 3 seconds
0.3 to 1 watt	flashes 1x every 2 seconds
1 watt	flashes 1x per second
2 watts	flashes 2x per second
3 watts	flashes 3x per second
and so on	
10 watts	steady light



Plug the charger cable into the battery's "Power Out" jack. The charging process begins and the LED should flash. The flashing LED indicates that the device is being charged, even though the device may report the opposite.

QUICK START GUIDE

Changers Manual
Version 2.0 EN December 2013